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United States Department of Agriculture,

BUREAU OF PLANT INDUSTRY,

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THE PISTACHE NUT.

The pistache nut, which in America is used principally for flavoring confectionery, is the most expensive nut that reaches our market, selling at from 35 cents to \$1 per pound, wholesale. It is a rich, oily nut of excellent flavor, and in Syria and other eastern countries is thought very highly of by all classes. It is often served roasted and salted, as are almonds in this country. While the pistache tree is of quite slow growth, it has the advantage of being very long lived. It is rather difficult to transplant, and stocks should be set out where they are to stand and be grafted afterwards with scions of the best varieties, which the United States Department of Agriculture will furnish to all who set out stocks.

The pistache tree comes into full bearing from 5 to 10 years after being grafted and yields from 20 to 100 pounds of nuts in the shell, of which it takes 3 pounds to furnish 1 pound of shelled kernels, in which form they are handled in our market. The few bearing trees in this country are mostly in California and are chiefly seedlings, but they are producing fairly good nuts, though smaller than the best Sicilian and other varieties which the department has introduced. Seedlings commence to bear at about 5 to 8 years of age in the warm climate of the interior valleys of California and produce up to 25 pounds each. The first grafted trees, mostly in Placer County, Cal., came into bearing the fourth year from the graft. The pistache is about as hardy as the fig or almond, but has a great advantage over the almond tree in flowering later in the spring and therefore being much less liable to injury from late frosts.

The tree is dioecious; that is, the male, or staminate, flowers and the female, or pistillate, flowers are borne on different trees. A few staminate trees, about one to seven or eight of the pistillate, are therefore necessary and should be planted to the windward of the pistillate trees in order that the abundant pollen may be carried by the wind to the female trees.

The pistache tree will not grow in arid regions, as has been claimed in certain misleading newspaper articles; nor will it yield any extra-

ordinary profits, least of all on unirrigated arid land. It does require less water than any other of the commonly cultivated fruit or nut trees; but pistache culture is still in the experimental stage and no one should engage in it with the idea of making fabulous profits. Pistache-nut culture promises to be profitable in the hands of careful horticulturists, but much more skill is always required to succeed with a new plant, such as this, than with the commonly cultivated and well-known fruit and nut trees. While the tree is not fastidious as to soil, a deep friable loam is conducive to its success. It thrives admirably with some irrigation on the characteristic red or yellow soil of the early peach belt of the Sierra Nevada foothills in California.

The improved varieties of the pistache can be grafted on some half dozen different stocks, some of which are decidedly drought resistant, native to the deserts of the Old World, from Morocco to India, where, indeed, they are the only trees of large size occurring within the limits of these deserts. These stocks are suitable for planting in Texas, New Mexico, Arizona, and California wherever a dense growth of mesquite or other trees indicates the presence of a stratum of water not far below the surface. A considerable number of these stocks is on hand for distribution, and there are also some ordinary stocks suitable for cultivation on ordinary fruit lands in California and Arizona. Although some of the pistache stocks, notably *Pistacia atlantica*, *Pistacia mutica*, and *Pistacia cabulica*, are drought resistant, they must, nevertheless, be watered when first set out, especially since the deep-seated root systems of such stocks are much reduced in transplanting.

Under irrigation the trees should be set out from 25 to 30 feet apart; but where the land is rather dry and there is no abundant supply of water near the surface they should be set from 30 to 40 feet apart. They must be irrigated until the roots strike a moist layer of earth.

From two to three years after setting out, the stocks will have attained sufficient size to be grafted—three-fourths inch to 1½ inches in diameter.

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Approved:

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